



### **Parameters:**

Dissolved Oxygen (optical or electrochemical)

рΗ

ORP/Redox

Conductivity/Salinity

**Temperature** 

Turbidity\*

TSS (total suspended solids)\*

**Ammonium** 

**Nitrate** 

Potassium

Sludge level

COD (chemical oxygen demand)\*

TOC (total organic carbon)\*

DOC (dissolved organic carbon share of TOC)\*

SAC (spectral absorption coefficient)\*

BOD (biochemical oxygen demand)\*

\* ultrasonic cleaning for sensors

#### YSI IQ SensorNet 2020 3G

## Continuous Water Quality Monitoring for Process Control

Powerful yet simple, the YSI IQ SensorNet 2020 3G is a modular water quality system for complete process control designed for wastewater. The 2020 3G network can accept additional sensors easily at any time and grow as your facility grows. Benefits include better network visibility and management, early detection of network failures, improved compliance with regulatory targets, and cost savings (energy, pump/blower maintenance, labor).

- 3-year instrument warranty
- User-replaceable cables and sensors. Many sensors provide ultrasonic cleaning.
- Centralized power supply along entire network; 2-wire cable provides power <u>and</u> communications
- Lightning protection along network
- 2020 3G provides tactile buttons; easily use while wearing gloves
- Modular expansion from 1 to 20 sensors; ability to extend network with additional modules
- Up to 48 output channels are possible
- LED status light
- Programmable access permission
- System redundancy if two terminals are used; use in one location or move from point to point

Building a system is easy...choose the IQ SensorNet 2020 3G, determine which modules are needed (control, communications, etc.), determine distances for cabling and select parameters.





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IQ SensorNet 2020 3G Terminal/Controller Specifications		
Certifications	ETL, cETL (conforms with relevant UL and Canadian standards), CE	
Electromagnetic Compatibility	EN 61326, Class B; FCC Class A, EMC for indispensable operation	
Integrated Lightning Protection According to EN 61326 enhanced over-voltage protection for entire system, implemented in each component		
Cable	2-wire with shield for power supply and communications; resistant to polarity reversal; comprehensive EMC shield control; cable topology within network can be in the form of a line, tree, star or multiple star	
	Total cable length max. = 1000 m (3280 ft) without signal amplifying; with signal amplifying module MIQ/JBR add an additional 1000 m	
Radio	Radio transmission Class 1 with a range of 100 m (328 ft); max 300 m (984 ft)	
Module Coupling at Rear	Combined mechanical and electrical connection for rapid coupling to modules; no wiring required	
USB Interface	USB-A (host)	
Display	Graphic color display; resolution 320 x 240 pixels; visible area 114 x 86 mm (4.49 x 3.39 in); backlit	
Control Keys/Buttons	5 operation keys: 3 master keys for Measurement (M), Calibration (C), Set/System settings (S)	
	2 function keys for confirmation/switching menu OK (OK) and Escape (ESC)	
	4 directional button for quick selection of software functions and input of alphanumeric values	
Datalogger	MIQ/TC 2020 3G; data memory for up to 525,600 data sets	
Electrical	Directly via the IQ SensorNet when coupled to an MIQ module	
Temperature Conditions	Operating Temperature: -4 to 131 °F (-20 to 55 °C)	
	Storage Temperature: -13 to 149 °F (-25 to 65 °C)	
Enclosure	Material: ASA (Acrylonitrile-Styrol-Acryloesterpolymer)	

IQ SensorNet 2020 3G Module (MIQ) Specifications

Weight: 1.0 kg (2.2 lbs) Warranty: 3 years

Module Coupling at Front	Combined mechanical and electrical connection for rapid docking and removal of the terminal and docking additional modules
Module Coupling at Rear	Combined mechanical and electrical connection for docking additional modules; a total of 3 modules as a stacked mounted unit
Cable Feeds	4 screw cable glands M 16 x 105
Terminal Connections	Screw terminal strips; terminal area for solid connectors 0.2 to 4.0 mm for flexible connectors 0.2 to 2.5 mm; accessible through cover Used for connecting sensors or as an input/output or for looping through/branching of the IQ SensorNet cable
Additional Functions	Two LEDs (yellow and red) for monitoring the operating voltage; lightning protection; connection resistant to reversed polarity; integrated local identity; integrated switchable terminal resistor (SN terminator)
Enclosure	Material: PC 20% GF (Polycarbonate with 20% fiberglass)
	Rating: IP-66, equivalent to NEMA 4X (not suitable for conduit connection)

Dimensions: 144 W x 144 H x 52 D mm (5.67 W x 5.67 H x 2.05 D in) Weight: 1.0 kg (2.2 lbs)

Rating: IP-66, equivalent to NEMA 4X (not suitable for conduit connection) Dimensions: 210 W x 170 H x 40 D mm (8.27 W x 6.69 H x 1.57 D in)

Warranty: 3 years

# IQ SensorNet 2020 3G Ordering Information (order 2020 3G, modules, cables, sensors separately)

MIQ/TC 2020 3G	Central terminal/controller unit only. Required to be installed once at any point, remains in the system and cannot be removed.
Item #470 020Y	Operation mode is shown through status LED. Up to 20 sensors can be connected.
MIQ/TC 2020 3G-H3	Multiparameter system consisting of 2020 3G, MIQ/CR3 (3 analog and 3 relays) and MIQ/PS (power supply). Up to 20 sensors
Item #470 022Y	can be connected.
MIQ/TC 2020 3G-H3 C6	Multiparameter system consisting of 2020 3G, MIQ/C6 (6 analog outputs) and MIQ/PS (power supply). Up to 20 sensors can
Item #470 024Y	be connected.
MIQ/TC 2020 3G-MC3	Multiparameter system consisting of 2020 3G, MIQ/MC3 and MIQ/PS (power supply). Up to 20 sensors can be connected.
Item #470 026Y	



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